

*If you are using a printed copy of this procedure, and not the on-screen version, then you **MUST** make sure the dates at the bottom of the printed copy and the on-screen version match. The on-screen version of the Collider-Accelerator Department Procedure is the Official Version. Hard copies of all signed, official, C-A Operating Procedures are kept on file in the C-A ESHQ Training Office, Bldg. 911A.*

## C-A OPERATIONS PROCEDURES MANUAL

### ATTACHMENT

#### 4.120.6.f 6 O’Clock (PEER 7) Chipmunk Tests

C-A-OPM Procedures in which this Attachment is used.		
4.120.6		

#### Hand Processed Changes

<u>HPC No.</u>	<u>Date</u>	<u>Page Nos.</u>	<u>Initials</u>
_____	_____	_____	_____
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Approved: Signature on File \_\_\_\_\_  
 Collider-Accelerator Department Chairman \_\_\_\_\_ Date \_\_\_\_\_

V. Castillo

#### 4.120.6.f 6 O’Clock (PEER 7) Chipmunk Tests

### PASS SEMI-ANNUAL ACCEPTANCE TEST PROTOCOL

Division A Software Filename and Checksum: Title: \_\_\_\_\_ Checksum: \_\_\_\_\_

Division B Software Filename and Checksum: Title: \_\_\_\_\_ Checksum: \_\_\_\_\_

**Initial testing complete:**

Test Team Leader’s Name (Print): \_\_\_\_\_ Life Number: \_\_\_\_\_

Test Team Leader’s Name (Sign): \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

**Acceptance test procedure complete (following repairs and retesting if required):**

Test Team Leader’s Name (Print): \_\_\_\_\_ Life Number: \_\_\_\_\_

Test Team Leader’s Name (Sign): \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

**Test results reviewed by:**

Safety Section Head’s Name (Print): \_\_\_\_\_ Life Number: \_\_\_\_\_

Safety Section Head’s Name (Sign): \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

**Test results accepted by Radiation Safety Committee:**

RSC Member’s Name (Print): \_\_\_\_\_ Life Number: \_\_\_\_\_

RSC Member’s Name (Sign): \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

1.1	<b>TEST</b>	Chipmunk <b>C232 located at 1006B SE corner</b> in <b>MODE 2</b>	
	<input type="checkbox"/> <b>VERIFY</b>	Chipmunk calibration date [ ____/____/____ ] is	<b>VALID</b>
	<input type="checkbox"/> <b>VERIFY</b>	Chipmunk is in good physical condition and is	<b>CHIRPING</b>
	<input type="checkbox"/> <b>VERIFY</b>	<b>MCR</b> sees Chipmunk as	<b>O.K.</b>
	<b>DETACH</b>	Cable from Chipmunk	
	<input type="checkbox"/> <b>VERIFY</b>	<b>MCR</b> sees Chipmunk as	<b>TRIP &amp; FAILSAFE</b>
	<b>RESET</b>	<b>Trip &amp; Failsafe at MCR</b>	
	<input type="checkbox"/> <b>VERIFY</b>	Attempt to <b>reset Trip &amp; Failsafe at MCR</b>	<b>FAIL</b>
	<b>CONNECT</b>	Chipmunk <b>Test box</b> to the <b>Chipmunk cable</b>	
	<input type="checkbox"/> <b>VERIFY</b>	<b>MCR</b> sees <b>Chipmunk 232</b> as	<b>O.K.</b>
	<b>PRESS</b>	<b>A &amp; B Div Trip</b> buttons <b>sequentially</b> on the <b>test box</b>	
	<input type="checkbox"/> <b>VERIFY</b>	<b>MCR</b> sees the Chipmunk 232 <b>Div A</b> <input type="checkbox"/> followed by <b>Div B</b> <input type="checkbox"/> as	<b>RAD</b>
	<b>RESET</b>	<b>Interlock at MCR</b>	
	<input type="checkbox"/> <b>VERIFY</b>	<b>MCR</b> sees C232 <b>Div A</b> <input type="checkbox"/> and <b>Div B</b> <input type="checkbox"/> as	<b>OK</b>
	<b>PRESS</b>	<b>A &amp; B Div FAIL</b> buttons <b>sequentially</b> on the <b>test box</b>	
	<input type="checkbox"/> <b>VERIFY</b>	<b>MCR</b> sees the Chipmunk 232 <b>Div A</b> <input type="checkbox"/> followed by <b>Div B</b> <input type="checkbox"/> as	<b>FAILSAFE</b>
	<b>RESET</b>	<b>Failsafe at MCR</b>	
	<input type="checkbox"/> <b>VERIFY</b>	<b>MCR</b> sees C232 <b>Div A</b> <input type="checkbox"/> and <b>Div B</b> <input type="checkbox"/> as	<b>OK</b>
	<b>DETACH</b>	Chipmunk <b>Test box</b> from cable	
	<b>CONNECT</b>	<b>Chipmunk</b> to cable	
1.2	<input type="checkbox"/> <b>VERIFY</b>	<b>Chipmunk</b> is	<b>CHIRPING</b>
	<input type="checkbox"/> <b>VERIFY</b>	<b>MCR</b> sees <b>Chipmunk</b> as	<b>O.K.</b>
	<input type="checkbox"/> Check for test acceptance of <b>Chipmunk C232</b> in <b>MODE 2</b>		
	<b>TEST</b>	Chipmunk <b>C233 located at 1005E – 5GE1</b> in <b>MODE 2</b>	
	<input type="checkbox"/> <b>VERIFY</b>	Chipmunk calibration date [ ____/____/____ ] is	<b>VALID</b>
	<input type="checkbox"/> <b>VERIFY</b>	Chipmunk is in good physical condition and is	<b>CHIRPING</b>
	<input type="checkbox"/> <b>VERIFY</b>	<b>MCR</b> sees Chipmunk as	<b>O.K.</b>
	<b>DETACH</b>	Cable from Chipmunk	
	<input type="checkbox"/> <b>VERIFY</b>	<b>MCR</b> sees Chipmunk as	<b>TRIP &amp; FAILSAFE</b>
	<b>RESET</b>	<b>Trip &amp; Failsafe at MCR</b>	
	<input type="checkbox"/> <b>VERIFY</b>	Attempt to <b>reset Trip &amp; Failsafe at MCR</b>	<b>FAIL</b>
	<b>CONNECT</b>	Chipmunk <b>Test box</b> to the <b>Chipmunk cable</b>	
	<input type="checkbox"/> <b>VERIFY</b>	<b>MCR</b> sees <b>Chipmunk 233</b> as	<b>O.K.</b>
	<b>PRESS</b>	<b>A &amp; B Div Trip</b> buttons <b>sequentially</b> on the <b>test box</b>	
	<input type="checkbox"/> <b>VERIFY</b>	<b>MCR</b> sees the Chipmunk 233 <b>Div A</b> <input type="checkbox"/> followed by <b>Div B</b> <input type="checkbox"/> as	<b>RAD</b>
	<b>RESET</b>	<b>Interlock at MCR</b>	
	<input type="checkbox"/> <b>VERIFY</b>	<b>MCR</b> sees C232 <b>Div A</b> <input type="checkbox"/> and <b>Div B</b> <input type="checkbox"/> as	<b>OK</b>
	<b>PRESS</b>	<b>A &amp; B Div FAIL</b> buttons <b>sequentially</b> on the <b>test box</b>	
	<input type="checkbox"/> <b>VERIFY</b>	<b>MCR</b> sees the Chipmunk 233 <b>Div A</b> <input type="checkbox"/> followed by <b>Div B</b> <input type="checkbox"/> as	<b>FAILSAFE</b>
	<b>RESET</b>	<b>Failsafe at MCR</b>	
	<input type="checkbox"/> <b>VERIFY</b>	<b>MCR</b> sees C233 <b>Div A</b> <input type="checkbox"/> and <b>Div B</b> <input type="checkbox"/> as	<b>OK</b>
	<b>DETACH</b>	Chipmunk <b>Test box</b> from cable	
	<b>CONNECT</b>	<b>Chipmunk</b> to cable	
C-A-OPM-ATT 4.120.6.f (Y)	<input type="checkbox"/> <b>VERIFY</b>	<b>Chipmunk</b> is	<b>CHIRPING</b>
	<input type="checkbox"/> <b>VERIFY</b>	<b>MCR</b> sees <b>Chipmunk</b> as	<b>O.K.</b>
<input type="checkbox"/> Check for test acceptance of <b>Chipmunk C33</b> in <b>MODE 2</b>			

- 1.3**
- |  |   |                            |
|--|---|----------------------------|
| <b>TEST</b>  | Chipmunk <b>C234 located at 1007W – 6GE3 in MODE 2</b>  |                            |
| <input type="checkbox"/> <b>VERIFY</b>   | Chipmunk calibration date [ ____/____/____ ] is   | <b>VALID</b>               |
| <input type="checkbox"/> <b>VERIFY</b>   | Chipmunk is in good physical condition and is   | <b>CHIRPING</b>            |
| <input type="checkbox"/> <b>VERIFY</b>   | <b>MCR</b> sees Chipmunk as   | <b>O.K.</b>                |
| <b>DETACH</b>  | Cable from Chipmunk   |                            |
| <input type="checkbox"/> <b>VERIFY</b>   | <b>MCR</b> sees Chipmunk as   | <b>TRIP &amp; FAILSAFE</b> |
| <b>RESET</b>   | <b>Trip &amp; Failsafe at MCR</b>   |                            |
| <input type="checkbox"/> <b>VERIFY</b>   | Attempt to <b>reset Trip &amp; Failsafe at MCR</b>  | <b>FAIL</b>                |
| <b>CONNECT</b>   | Chipmunk <b>Test box</b> to the <b>Chipmunk cable</b>   |                            |
| <input type="checkbox"/> <b>VERIFY</b>   | <b>MCR</b> sees <b>Chipmunk 234</b> as  | <b>O.K.</b>                |
| <b>PRESS</b>   | <b>A &amp; B Div Trip</b> buttons <b>sequentially</b> on the <b>test box</b>  |                            |
| <input type="checkbox"/> <b>VERIFY</b>   | <b>MCR</b> sees the Chipmunk 234 <b>Div A</b> <input type="checkbox"/> followed by <b>Div B</b> <input type="checkbox"/> as | <b>RAD</b>                 |
| <b>RESET</b>   | <b>Interlock at MCR</b>   |                            |
| <input type="checkbox"/> <b>VERIFY</b>   | <b>MCR</b> sees C234 <b>Div A</b> <input type="checkbox"/> and <b>Div B</b> <input type="checkbox"/> as                     | <b>OK</b>                  |
| <b>PRESS</b>   | <b>A &amp; B Div FAIL</b> buttons <b>sequentially</b> on the <b>test box</b>  |                            |
| <input type="checkbox"/> <b>VERIFY</b>   | <b>MCR</b> sees the Chipmunk 234 <b>Div A</b> <input type="checkbox"/> followed by <b>Div B</b> <input type="checkbox"/> as | <b>FAILSAFE</b>            |
| <b>RESET</b>   | <b>Failsafe at MCR</b>  |                            |
| <input type="checkbox"/> <b>VERIFY</b>   | <b>MCR</b> sees C234 <b>Div A</b> <input type="checkbox"/> and <b>Div B</b> <input type="checkbox"/> as                     | <b>OK</b>                  |
| <b>DETACH</b>  | Chipmunk <b>Test box</b> from cable   |                            |
| <b>CONNECT</b>   | <b>Chipmunk</b> to cable  |                            |
| <input type="checkbox"/> <b>VERIFY</b>   | <b>Chipmunk</b> is  | <b>CHIRPING</b>            |
| <input type="checkbox"/> <b>VERIFY</b>   | <b>MCR</b> sees <b>Chipmunk</b> as  | <b>O.K.</b>                |
| <input type="checkbox"/> <b>Check for test acceptance of Chipmunk C234 in MODE 2</b> |   |                            |
- 
- 1.4**
- |  |   |                            |
|--|---|----------------------------|
| <b>TEST</b>  | Chipmunk <b>C235 located at STAR Shield Wall in MODE 2</b>  |                            |
| <input type="checkbox"/> <b>VERIFY</b>   | Chipmunk calibration date [ ____/____/____ ] is   | <b>VALID</b>               |
| <input type="checkbox"/> <b>VERIFY</b>   | Chipmunk is in good physical condition and is   | <b>CHIRPING</b>            |
| <input type="checkbox"/> <b>VERIFY</b>   | <b>MCR</b> sees Chipmunk as   | <b>O.K.</b>                |
| <b>DETACH</b>  | Cable from Chipmunk   |                            |
| <input type="checkbox"/> <b>VERIFY</b>   | <b>MCR</b> sees Chipmunk as   | <b>TRIP &amp; FAILSAFE</b> |
| <b>RESET</b>   | <b>Trip &amp; Failsafe at MCR</b>   |                            |
| <input type="checkbox"/> <b>VERIFY</b>   | Attempt to <b>reset Trip &amp; Failsafe at MCR</b>  | <b>FAIL</b>                |
| <b>CONNECT</b>   | Chipmunk <b>Test box</b> to the <b>Chipmunk cable</b>   |                            |
| <input type="checkbox"/> <b>VERIFY</b>   | <b>MCR</b> sees <b>Chipmunk 235</b> as  | <b>O.K.</b>                |
| <b>PRESS</b>   | <b>A &amp; B Div Trip</b> buttons <b>sequentially</b> on the <b>test box</b>  |                            |
| <input type="checkbox"/> <b>VERIFY</b>   | <b>MCR</b> sees the Chipmunk 235 <b>Div A</b> <input type="checkbox"/> followed by <b>Div B</b> <input type="checkbox"/> as | <b>RAD</b>                 |
| <b>RESET</b>   | <b>Interlock at MCR</b>   |                            |
| <input type="checkbox"/> <b>VERIFY</b>   | <b>MCR</b> sees C235 <b>Div A</b> <input type="checkbox"/> and <b>Div B</b> <input type="checkbox"/> as                     | <b>OK</b>                  |
| <b>PRESS</b>   | <b>A &amp; B Div FAIL</b> buttons <b>sequentially</b> on the <b>test box</b>  |                            |
| <input type="checkbox"/> <b>VERIFY</b>   | <b>MCR</b> sees the Chipmunk 235 <b>Div A</b> <input type="checkbox"/> followed by <b>Div B</b> <input type="checkbox"/> as | <b>FAILSAFE</b>            |
| <b>RESET</b>   | <b>Failsafe at MCR</b>  |                            |
| <input type="checkbox"/> <b>VERIFY</b>   | <b>MCR</b> sees C235 <b>Div A</b> <input type="checkbox"/> and <b>Div B</b> <input type="checkbox"/> as                     | <b>OK</b>                  |
| <b>DETACH</b>  | Chipmunk <b>Test box</b> from cable   |                            |
| <b>CONNECT</b>   | <b>Chipmunk</b> to cable  |                            |
| <input type="checkbox"/> <b>VERIFY</b>   | <b>Chipmunk</b> is  | <b>CHIRPING</b>            |
| <input type="checkbox"/> <b>VERIFY</b>   | <b>MCR</b> sees <b>Chipmunk</b> as  | <b>O.K.</b>                |
| <input type="checkbox"/> <b>Check for test acceptance of Chipmunk C235 in MODE 2</b> |   |                            |

<b>1.5</b>	<b>TEST</b>	<b>Chipmunk C236 located at 6ED1 - STAR in MODE 2</b>	
<input type="checkbox"/>	<b>VERIFY</b>	Chipmunk calibration date [ ____/____/____ ] is	<b>VALID</b>
<input type="checkbox"/>	<b>VERIFY</b>	Chipmunk is in good physical condition and is	<b>CHIRPING</b>
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> sees Chipmunk as	<b>O.K.</b>
	<b>DETACH</b>	Cable from Chipmunk	
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> sees Chipmunk as	<b>TRIP &amp; FAILSAFE</b>
	<b>RESET</b>	<b>Trip &amp; Failsafe at MCR</b>	
<input type="checkbox"/>	<b>VERIFY</b>	Attempt to <b>reset Trip &amp; Failsafe at MCR</b>	<b>FAIL</b>
	<b>CONNECT</b>	Chipmunk <b>Test box</b> to the <b>Chipmunk cable</b>	
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> sees <b>Chipmunk 236</b> as	<b>O.K.</b>
	<b>PRESS</b>	<b>A &amp; B Div Trip</b> buttons <b>sequentially</b> on the <b>test box</b>	
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> sees the Chipmunk 236 <b>Div A</b> <input type="checkbox"/> followed by <b>Div B</b> <input type="checkbox"/> as	<b>RAD</b>
	<b>RESET</b>	<b>Interlock at MCR</b>	
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> sees C236 <b>Div A</b> <input type="checkbox"/> and <b>Div B</b> <input type="checkbox"/> as	<b>OK</b>
	<b>PRESS</b>	<b>A &amp; B Div FAIL</b> buttons <b>sequentially</b> on the <b>test box</b>	
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> sees the Chipmunk 236 <b>Div A</b> <input type="checkbox"/> followed by <b>Div B</b> <input type="checkbox"/> as	<b>FAILSAFE</b>
	<b>RESET</b>	<b>Failsafe at MCR</b>	
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> sees C236 <b>Div A</b> <input type="checkbox"/> and <b>Div B</b> <input type="checkbox"/> as	<b>OK</b>
	<b>DETACH</b>	Chipmunk <b>Test box</b> from cable	
	<b>CONNECT</b>	<b>Chipmunk</b> to cable	
<input type="checkbox"/>	<b>VERIFY</b>	<b>Chipmunk</b> is	<b>CHIRPING</b>
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> sees <b>Chipmunk</b> as	<b>O.K.</b>
<input type="checkbox"/>	<b>Check for test acceptance of Chipmunk C236 in MODE 2</b>		

#### END OF TEST PROCEDURE

**TTL: Sign for completion of initial testing:** \_\_\_\_\_

**Date:** \_\_\_\_/\_\_\_\_/\_\_\_\_

**TTL: Sign for completion of final testing:** \_\_\_\_\_

**Date:** \_\_\_\_/\_\_\_\_/\_\_\_\_